STRUCTURE 31

This structure is a triple barreled, corrugated metal pipe culvert, located at the point where L-30 crosses the Miami Canal, about 15 miles west of Miami. Control is effected by manually operated sluice gates mounted on a steel frame erected on the upstream end of the structure.

PURPOSE

This structure, together with S-151, permits release of water from Conservation Area 3 to supply water needs along the Miami Canal during the dry season. It also can be used to discharge excess water from Conservation area 3B when capacity is available in the Miami Canal.

OPERATION

This structure is manually operated under either flood or normal conditions.

FLOOD CONDITIONS

The gates of this structure are opened whenever:

1. Excess storage is present in the Conservation Area 3A and/or 3B prior to hurricane season; that is when the stage in Conservation Area 3A is in Area A on the Regulation Schedule, measured as the average of gauges 63, 64 and 65.
2. Capacity is available in the Miami Canal.

NORMAL CONDITIONS

When operations are not required under flood conditions, releases shall be made, as necessary, to supply downstream water requirements so as to maintain an optimum stage of 2.5 at the S-26 and at other coastal control structures in northern Dade County.

In order to preclude fish kills in C-304, the combined discharge of S-337 and S-31 shall be equal to or less than the discharge of S-151. Moreover, S-151 shall be opened the day before S-337 and/or S-31 are opened, and S-151 shall remain open until the day after S-337 and/or S-31 are closed.

For structure stability, the headwater level should not exceed 9.0 feet.

FLOOD DISCHARGE CHARACTERISTICS

	Design
Discharge Rate	700 cfs
	* % SPF
Headwater Elevation	6.0 feet
Tailwater Elevation	4.0 feet
Type Discharge	controlled submerged

*Designed for Normal Conditions. Discharge of Conservation Area 3 for Standard Project Flood designed to be passed through S-12 alone.

DESCRIPTION OF STRUCTURE

Type Corrugated metal pipe culverts with upstream control

Number of barrels 3

Size of barrels 84 inches

Length of barrels 172"'

Flow line elevation -3.0

Service bridge elevation 15.0

Gates

Number 3

Type Hardisty Model 30-05C

Size 84 inch diameter

Control Manual

Lifting Mechanism - Type hoist Pedestal mounted, Type U, manually operated

Date of Transfer: July 12, 1963

ACCESS: Structure located adjacent to U.S. Highway 27

HYDRAULIC AND HYDROLOGIC MEASUREMENTS

Water Level On-site U.S.G.S. recorder about 1/2 mile downstream from structure & remote digital upstream and downstream recorders.

Gate Position Recorder Remote digital recorders on all gates

DEWATERING FACILITIES (per gate) None

NOTE: Notches in SW side of C-123 between S-31 and S-151 are at elevation 7.3, 7.2, 7.1 & 7.0 from NW to SE as per Charlie Duerson 10/07/80.